DOCUMENT RESUME

ED 104 981 UD 014 919

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TITLE Education by Peers: A Clique Study.
INSTITUTION Florida Univ., Gainesville. P. K. Yonge Lab. School.
PUB DATE Aug 74
NOTE 69p.

EDRS PRICE MF-$0.76 HC-$3.32 PLUS POSTAGE
DESCRIPTORS *Academic Achievement; Educational Attitudes; Freshmen; Friendship; Group Status; *High School Students; *Peer Groups; Research Methodology; Role Perception; *School Attitudes; School Integration; *Self Concept; Social Relations; Sociometric Techniques
IDENTIFIERS Florida

ABSTRACT

The primary objective of this study was to determine whether a student's participation in a particular friendship group within his high school class had any relationship to his academic performance, his self-concept as learner, or his perception of his school environment and the other students in it. The class of 1975 at the P. K. Yonge Laboratory School (University of Florida) was studied over their freshman and sophomore years. Because the school's admission policy increased the size of the ninth-grade class by 50 percent, it was also possible to study the ways in which a group of new students, both white and black, established positions within the existing social structure of the grade. This study was an attempt to bridge the gap between the two major research techniques generally used in the study of adolescent groups: questionnaires and participant observation. Observations and student and teacher interviews were used to define the social structure existing within the 89 member student class of 1975. The students included in this study completed the "Ohio Social Acceptance Scale" and the "Battle Student Attitude Scale" twice: once during their freshman year and again during their sophomore year. Teachers completed the "Florida Key," an inferred learner self-concept, on each student while he was in the ninth grade. School records were also examined. (Author/JM)

ED104981

EDUCATION BY PEERS:

A CLIQUE STUDY

by

Dr. Sandra Damico

August, 1974

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ACKNOWLEDGMENTS

This research could not have been completed without the cooperation of the students in the Class of 1975 and their teachers at the P. K. Yonge Laboratory School. The teachers graciously consented to frequent observations within their rooms, scheduled time to be interviewed, and paused in their class schedules to permit collection of data from students.

Special thanks are extended to Professors Robert Curran, Vynce Hines, and Solon Kimball for their encouragement, suggestions, and criticisms throughout this project. Their help was invaluable.

PREFACE

"Birds of a feather flock together" is an age-old aphorism. Parents have often said their children "get in trouble" because they "got in with the wrong crowd." Teachers have said certain students are not "good influences" on others. In 1955 Taba said, "Integration of individuals in school groups seems to enhance motivation of learning while disintegration, cleavage, and isolation lessen effort and motivation" (1955, p. 144). Later Schmick (1963) and other students of the self-concept have considered the relationship of peer relations and self-concept.

Using the participant-observer method as well as standardized measures of academic performance and pencil and paper measures of social and self-acceptance, the study reported in this monograph investigated the relationship of clique membership to students' academic performance, self-concepts, and perceptions of the school and fellow-students. It was found that membership in peer groups is a great influence on all of these factors. This is certainly not news to the experienced teacher. However, when evidence shows our previous observations were in fact accurate, we may not give that evidence sufficient attention.

Dr. Damico suggests recognition of the importance of the informal social structure among students has implications for several aspects of school life -- scheduling, counseling, grouping, extracurricula program, and orientation of new students. Therefore, both administrators and classroom teachers must work on problems in these areas. Brookover and Erikson (1969, p. 110) stated it forcefully:

> If the classroom teacher is to be successful in teaching, each teacher must be able to identify the various roles that students are playing, the norms they have subscribed to in their role behavior, the values in which the norms are embedded, and the reasons why such a behavioral pattern has emerged in the first place. To understand this is to maximize productive learning in the classroom . . .

Peer groupings are not to be fought and destroyed by educators. Sherif (1966, p. 447) says "it seems doubtful that adolescent strivings could be maintained effectively in the abscence of supports of peers." Let us educators then analyze those supports and prepare ourselves to work through them for the benefit of our students.

This study has made us at P. K. Yonge more thoughtful about student interactions. We are confident you will find much herein which seems to describe your school. If you would like to use this monograph as a means of helping educators in your school or district to increase their awareness of the informal social structures among students, we can provide you with additional copies.

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INTRODUCTION

The primary objective of this study was to determine whether a student's participation in a particular friendship group within his high school class had any relationship to his academic performance, his self-concept as learner, or his perception of his school environment and the other students in it. The class of 1975 at the P.K. Yonge Laboratory School (University of Florida) was studied over their freshman and sophomore years. Because the School's admission policy increased the size of the ninth-grade class by 50 percent, it was also possible to study the ways in which a group of new students, both white and black, established positions within the existing social structure of the grade.

That learning is social as well as individual is often overlooked as schools place their primary emphasis upon individual differences in measured ability. Yet, from many sources we know that the behavior of individuals is influenced to a large extent by their interactions with others. Indeed, research on reference groups by social psychologists has repeatedly indicated that any study of attitudes and behaviors must take into account an individual's position within a network of interpersonal relationships. This principle is particularly relevant to the educational process when placed in the context of findings which indicate that an individual acquires conceptions of his ability to learn through interactions with those who are important to him. In this same vein, Hilda Taba's work on the extracurricular programs of schools led her to conclude that ". . . the lack of a sense of belonging affects self-expectations and motivations regarding academic success . . . because integration of individuals into school groups seems to enhance motivation of learning while disintegration, cleavage, and isolation lessen effort and motivation" (Taba, 1955, p. 114).

This study was an attempt to bridge the gap between the two major research techniques generally used in the study of adolescent groups: questionnaires and participant observation. The most common approach has been the administration of some form of questionnaire. Most of our knowledge about various adolescent values and behavior patterns has been gained through this technique. However, the questionnaire approach to the study of small groups is limited in its ability to define precisely the effects of friendship interaction.

Indeed, questionnaire studies have rarely even focused upon this aspect of adolescent life, but have sought instead to establish correlations among specific variables across large populations. Where friendship has been considered in this type of study, it has usually been categorized along some dimension, such as similar sociometric choice.

The second major research technique, participant observation, has produced valuable information on the process through which individuals who interact on a daily basis, modify the demands and pressures of an institution to a mutually acceptable level. This type of study describes the extent to which individuals are influenced by the other people in their immediate environment. Participant observation is especially suited to studies of this nature because it enables one to discern subtleties of patterned behavior--patterns which are frequently unknown to the participant himself. While this approach has some unique contributions to make to the study of adolescents, the number of studies using participant observation has been limited because of the large expenditures in time and money required for their successful completion. When observations have been used as the major research technique, they have seldom been accompanied by a variety of pencil-and-paper measures (attitudes, achievement, etc.) collected on the students and then analyzed by the specific clique groups to which these students are observed to belong. Yet, pencil-and-paper measures are useful in exploring various facets of attitudes and perceptions, while observation procedures define the social context in which they are developed and operate.

This study sought to capitalize upon the strengths of both questionnaire and participant observation techniques. It was felt that a combined approach would permit the analysis of various types of measures on a clique-group-by-clique-group basis. This should provide a more precise understanding than previously available of the relation of the clique system to academic and attitude characteristics of the individual members, and to the social and demographic characteristics common to, and differentiating among, the cliques within the class.

Observations and student and teacher interviews were used to define the social structure existing within the eighty-nine member student class of 1975 at the P.K. Yonge Laboratory School. The students included in this study completed the Ohio Social Acceptance Scale and the Battle Student Attitude Scale twice: once during their freshman year and again during their sophomore year. Teachers completed the Florida Key, an inferred learner self-concept scale, on each student while he was in the ninth grade.

Scores obtained by the students on the Florida Statewide Ninth Grade Test and fathers' occupations were taken from school records. By the use of individual course grades contained in guidance office files, a grade-point average was calculated for each student at the end of the ninth and tenth grades. Sex and race were, of course, recorded for each student.

A variety of statistical procedures were used to predict student grade-point averages from aptitude scores and then to calculate the relationship between clique membership, predicted grades, and grades received. Statistical procedures were also applied to the remaining collected data to test the relationship between clique membership and social acceptance by peers, attitude toward school, and inferred learner self-concept.

The results of this study are summarized as follows:

1. New females had greater difficulty than new males in establishing friendships with other students in the class. Females who were not accepted by an existing clique remained loners, whereas males who were not accepted into existing cliques banded together to form groups of all new males.

2. There did not appear to be any differences associated with race that distinguished ability to become an accepted clique member. With one exception all cliques within the class were segregated along racial lines.

3. Cliques did not dissolve between the freshman and sophomore years, but considerable student movement into and out of the existing cliques was observed.

4. Clique membership was found to be a better predictor of grades than was a measure of academic aptitude.

5. Students did not establish clique groups on the basis of common ability as indicated by a measure of academic aptitude.

6. Clique membership was also found to be a better predictor of attitude toward school, social acceptance by peers, and inferred learner self-concept than the class means on these measures.

Chapter I

PURPOSE AND RATIONALE

The Purpose

The purpose of this study was to examine, over a two-year period of time, the friendship patterns existing within a class of eighty-four students in order to gain a greater understanding of the relationship between friendship position in a social group and expression of attitudes and behaviors valued by schools. Because of a unique set of circumstances it was also possible to observe the ways in which new students, both black and white, established positions within the existing social structure of the class. The specific questions being addressed in this study are:

1. How do new members to the school become incorporated into the social structure of the class?

2. Can membership in particular cliques be used to predict such variables as academic achievement, attitude toward school, social acceptance by grade peers, and learner self-concept as inferred by teachers?

3. Do cliques maintain their cohesiveness over a two-year period of time?

At the time of this research the students being studied were ninth and then tenth graders at the P.K. Yonge Laboratory School, a department of the College of Education of the University of Florida.

Rationale

Is there any reason to believe that there might be a significant relationship between clique membership and achievement, acceptance by peers, attitude toward school, and/or self-concept as learner? From many sources we know that the behaviors of individuals are influenced to a large extent by their interactions with others. Indeed, Festinger (1950), Homans (1950), Sherif and Sherif (1964) and others have documented the powerful effects of small face-to-face groups. While not overlooking the fact that friendship tends

to form initially around some shared interests, Alexander and Campbell state the commonly held position that ". . . individuals will tend through communication to become more similar with regard to important behaviors, attitudes and values of common relevance" (Alexander & Campbell, 1964, p. 570). Thus, not surprisingly, many additional studies (Braham, 1965; Coleman, 1961; Eggleston, 1967; Gold & Douvan, 1971) have confirmed that acceptance into a clique group involves more than some kind of group-approved achievement; it also involves a conformity and a consensus of values which are major factors in the establishment of the high level of esprit de corps characteristic of most adolescent groups. This evolution occurs because clique members generally do not experience the group norms as intrusions which demand unquestioning fidelity; rather, these norms are their own.

Deriving primarily from the frequently observed manifestations of conformity, educators often define cliques in totally negative tones. But Dunphy (1963), Taba (1955), Havighurst (1972), and others have identified some positive effects of group membership. Indeed, Dunphy (1963) found in his researches that clique membership was virtually the only way in which adolescents established and expanded their social contacts. Whichever of these two positions is accepted, neither denies that cliques tend to act as a mediating force between the messages being sent by an academic institution and those actually received by individual students. Thus, there is a need to expand our understanding of the ways in which the friendship system within a school is associated with the expression of attitudes and behaviors by students.

Adolescence was selected as an appropriate age for a study exploring these relationships because of prior research (Gold & Douvan, 1971; Havighurst, 1972; Tryon, 1944; and Gildewell, 1965) which had documented the qualitative difference between adolescent friendships and those which occur at an earlier age.

> Between 11 and 18 there are clear and continuous changes: from a concept of friendship as a parallel partnership focused on a common activity to a concept of mutuality in which the interaction itself claims focal interest; from no or relatively little emotional exchange to intense emotional interaction; from a relationship that cannot tolerate conflict to one that can contain and potentially resolve conflict. (Gold & Douvan, 1971, p. 172.)

The P.K. Yonge Laboratory School (University of Florida) was considered an appropriate site for this study because it had a student population in the ninth grade which was large enough to provide a range of choice in friendship selection and yet small enough to permit careful observation of social interactions and the collection of a wide variety of data on all members. Additionally, the student population at this grade level was annually increased by 50 percent. This factor permitted the detailing of what happened to newly admitted students as they moved into an established social structure as well as an examination of the association between friendship choices and other variables for all members of the class.

This type of information deserves serious attention because the movement of students into new school environments is not a problem particular to this one institution. Every year approximately one out of every five persons in the United States moves, thus uprooting millions of children from known schools and enrolling them in unfamiliar ones. Few studies have been conducted on the problems confronting students who change schools. Those that have been done (e.g., Cohen, 1972) emphasize the negative effects upon academic performance by students who feel unaccepted and unsure of themselves. Exploration of the movement of new students into the school thus became an important sidelight of this study.

An in-depth study of peer relationships over a two-year span of time was thus considered an opportunity to extend knowledge of the relationship between a student's participation in a particular friendship group and his academic performance, self-concept as learner, and the manner in which he perceived his school environment and the other students in it. It was felt that the results of such a study might document the need for the serious consideration, by educators, of the relationship between the informal school program and the formal.

Chapter II

RESEARCH METHODS

This chapter discusses the research questions, design of the study, the sample, data collection techniques, procedures, instrumentation, and methods of data analysis. The limitations of the study are also presented.

Research Questions

The questions which this study was formulated to answer are:

1. Do new male and female ninth grade students differ in the ways in which they become incorporated into the social structure of their class?

2. Are there any differences in the ways in which the black males and white males become incorporated into the existing social structure of the class?

3. Are there any differences in the ways in which the black females and white females become incorporated into the social structure of the class?

4. Do students belong to the same cliques in both their freshman and sophomore years?

5. Are the cliques defined in this study through observation composed of students of similar sex and race?

6. Does socioeconomic status of father, as measured by Warner's Revised Scale for Rating Occupations, relate to membership in cliques?

7. Can the grade-point average of individual students be more nearly predicted by their clique membership or by aptitude scores they obtain on the Florida Statewide Ninth Grade Test?

8. Are cliques composed of students with similar academic ability as measured by the aptitude scores received on the Florida Statewide Ninth Grade Test?

9. Can the attitude toward school of individual students, as measured by the Battle Student Attitude Scale, be more accurately predicted by the attitude scores of their clique members or by the mean attitude score for the males or females in the class?

10. Can the degree of social acceptance by grade peers for individual students, as measured by the Ohio Social Acceptance Scale, be more accurately predicted by the social acceptance of their clique members or by the mean social acceptance score for males or females in the class?

11. Is self-concept as a learner, as determined by the teacher-completed Florida Key, more accurately predicted by the self-concept scores of clique members or by the mean self-concept scores for the males and females in the class?

The Design

An exploratory field study was the design selected as most appropriate to answer the preceeding research questions because they are aimed at the uncovering of existing relationships among various demographic and attitudinal variables and the establishment of friendships within a high school class of eighty-four students rather than the testing of prescribed treatment. The need for realism in the examination of reciprocal influences among friends overcomes the weaknesses inherent in the field-study technique and makes it a valuable research tool when used with care. In an effort to compensate for some of the inherent weaknesses of this type of design, data were collected on the same students for two years.

While this is a field study with heavy emphasis upon observation and interview data and no treatment applied to the subjects, pre- and posttest data were nevertheless collected on school attitude and social acceptance to assess changes over the two years covered in the study. Students completed these measures in the fall of their freshman year and the spring of their sophomore year. The following demographic data were also obtained on all students: sex, race, socioeconomic status, and aptitude scores. Teachers completed an inferred learner self-concept measure on all students in the fall of their freshman year.

The social structure of the class as personified by the student-student relationships was identified through modified

participant-observation techniques. Because of age differences it was impossible for the observer to become an accepted member of the class. It was possible, however, for the researcher to observe students at various locations on the school's campus: classrooms, library, cafeteria, gymnasium, and loitering on the sidewalks before, between, and after classes. These observations, conducted for two years, were used as the basis for determining the cohesiveness of the cliques over time as well as the placement of students within groups. Because students at this school are accustomed to being observed by faculty and students from the University, it is considered unlikely that the observation techniques used in any way affected the natural formation of student groups.

Each individual clique or friendship pair was used as the unit of measure in the analysis of data rather than total class scores. Predicted scores for each student were obtained on grade-point average, attitude toward school, social acceptance, and self-concept. These predicted scores were then compared to actual scores recorded for each student and the mean score for the clique to which the student belonged. This process permitted a detailed analysis of the relationship between clique membership and these variables for the students in this particular class.

The Sample

This research was conducted using all members of the class of 1975 at the P. K. Yonge Laboratory School (University of Florida). This University is located in a southeastern community of 80,000.

P. K. Yonge High School

The P. K. Yonge High School is the secondary section of a K-12 laboratory school. While the classrooms are self-contained units, they are distributed among nine wings rather than being enclosed within a single structure. The three northernmost wings house the elementary students in grades K-5. Sixth-, seventh-, and eighth-grade classes are concentrated in J-Wing. The remaining wings are used by the secondary students. In addition to the classrooms there are the usual support buildings: an administrative office, auditorium, clinic, guidance office, learning resources (library and media), cafeteria, and gymnasium plus research offices. (See Figure 1.)

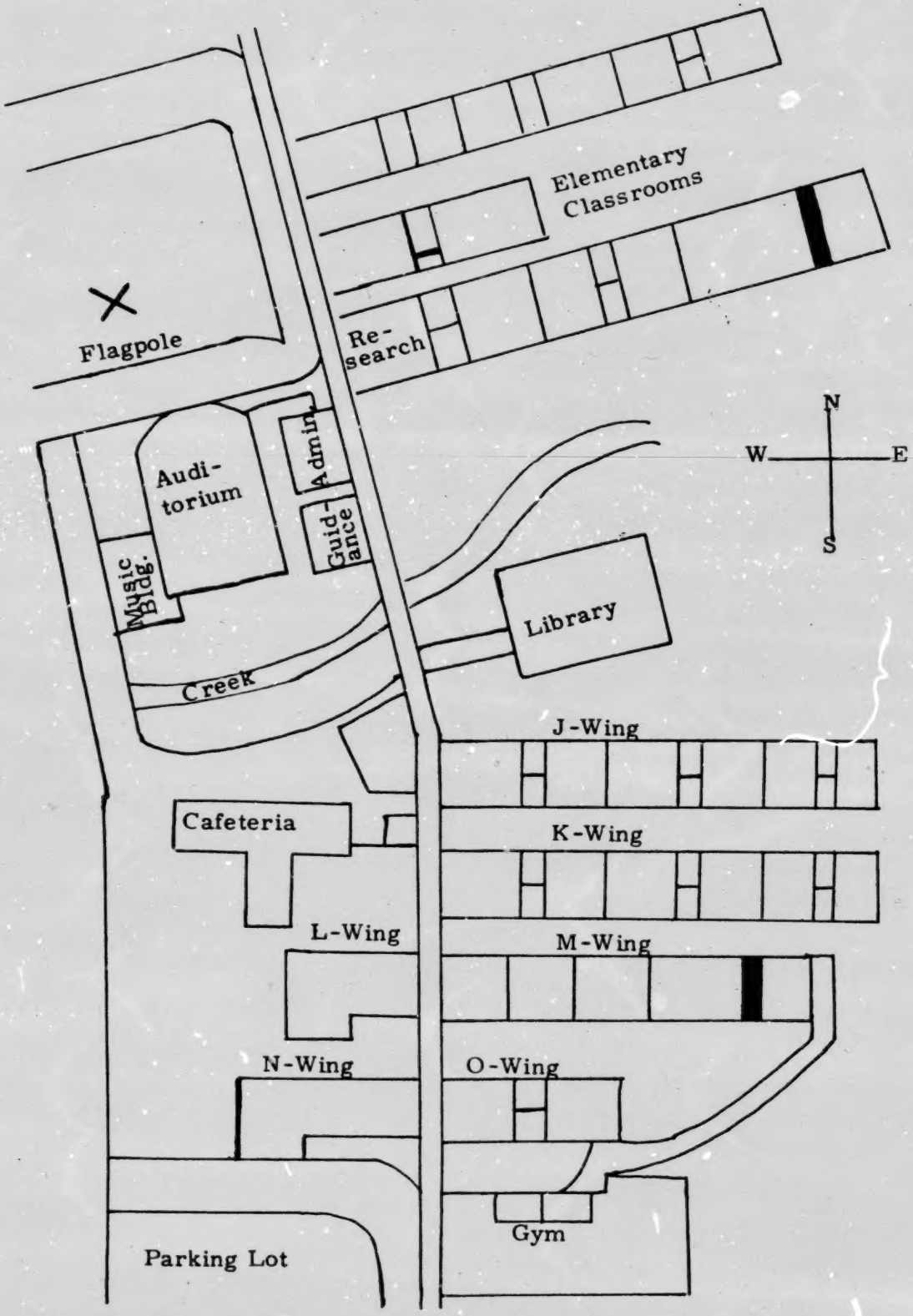

Figure 1. P. K. Yonge Laboratory School

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Student enrollment in the Laboratory School is set at 900: kindergarten and grades 1-8, 60 per grade; and grades 9-12, 90 per grade. The increased size of the secondary classes results from a school policy admitting thirty new students at the beginning of the ninth grade. The P.K. Yonge High School thus has 360 pupils grades 9-12 when all vacancies are filled. Students are admitted from a waiting list, by race and economic categories representative of the state population, to the kindergarten and the ninth grade. Prior to 1971 selection for admission to the school was chronological by date of application. A formula provided the following distribution at each grade level: 50 percent males and 50 percent females.

The Class of 1975

In February 1971, with the advent of court-ordered integration in the public schools of the community, the Laboratory School revised its admissions policy and began actively recruiting black students to fill existing vacancies with an established goal of having at least 20 percent black students at each grade level.[1] Other than filling vacancies, which occur infrequently, the obvious places for the introduction of black students were at the kindergarten level where new students are first admitted, and at the ninth grade level where the class size is increased 50 percent. Thus, in the fall of 1971 nineteen white and thirteen black students were admitted to the class of 1975 making the total class composition of eighty-nine students: 50 percent male and 50 percent female; 79 percent white and 21 percent black. Using Warner's seven-point occupational rating scale, which uses number one as the highest occupation rating, students in this class were distributed across occupational class lines in the following manner:

Occupation Level	Number of students
1 (Professionals)	36
2 (Semi-professionals)	23
3 (Clerks and kindred workers)	7
4 (Skilled workers)	9
5 (Proprietors of small businesses)	9
6 (Semi-skilled workers)	4
7 (Unskilled workers)	1

[1] An additional admissions policy is attempting to distribute the school's student body among five economic ranges proportional to those represented by the state's population.

Data Collection

Starting with the beginning of school in the fall of 1971 ninth-grade students were observed at various locations on the school's campus. These observations were conducted at various times of the day throughout the fall and winter months of both years covered by this study. In the spring of each year data from these observations were translated into charts, similar to sociograms, depicting the observed friendship patterns. These two charts are presented as Figures 2 and 3 in Chapter III. These friendship charts were developed independently for both years of this study so that changes in the social structure of the class could be identified. The reader is again reminded that because of the nature of this school the presence of the observer can be considered as unobtrusive.

The validity of the observation data was checked through interviews. All of the teachers of the students were interviewed individually without being shown the chart developed by the researcher. At the beginning of the interview they were each given an alphabetical list of the names of all the students in the class. They were asked about the friendship patterns they had observed and then asked to comment upon those characteristics which seemed to define the students within the various cliques, i.e., they are all academically oriented, they all are more interested in boys, etc. The teacher responses were then compared to the original observations of the researcher. Where discrepancies were identified, additional observations of the students were conducted. This procedure was considered as a necessary check. It was found that faculty members varied in their ability to report the social structure of the class.

Ten students, representing a cross section of the grade, were selected for individual interviews. Male-female, black-white, and former students-newcomers[2] were the characteristics sought in the students selected for interviews. Questions similar to those asked of the teachers were raised with them. First, each student was asked to list his best friend and then other students with whom he frequently associated on campus. Each student was then given an alphabetical list of the students in the class. He was asked to name other students whom he observed "hanging around" together. Information about characteristics which defined the groups was also sought. Again, where discrepancies occurred between student-reported and researcher-observed friendship groups, additional observations were conducted. Students, like faculty, varied in their ability to report the social structure of the grade.

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[2]Throughout this monograph "new students" refer to those who entered the Laboratory School at the beginning of the ninth grade, the first year of this study. "Former students" does not mean students no longer at the School, but rather students whose attendance began prior to the beginning of this study.

Concurrently with the observation process, other types of data were collected on the students. In early fall, approximately around the middle of November, all students completed the Battle Student Attitude Scale and the Ohio Social Acceptance Scale. In the spring of their sophomore year students re-took these measures.

An inferred self-concept measure was completed on each student by his Study of Man (language arts-social studies) teacher. This measure was completed sometime during late October, 1971, or when the students were freshmen.

During the third week in September all students in the ninth grade were required by law to take the Florida Statewide Ninth Grade Test. The total aptitude measure obtained by each student was used as the measure of potential academic achievement.

No treatment occurred within the interval between the pre- and posttest measures. Students were observed in their natural setting.

Instrumentation

Two instruments were selected to measure differing aspects of the human relations among the students in the class being studied: the Ohio Social Acceptance Scale and the Battle Student Attitude Scale. The Florida Key, an inferred learner, self-concept scale, was completed on all students. School record data on all students included socioeconomic status, grade-point average, academic aptitude, race, and sex.

Ohio Social Acceptance Scale

The Ohio Social Acceptance Scale (OSAS) was used as a technique of identifying degree of social acceptance of each student by his peers. This instrument was developed in cooperation between the Evaluation Division of the Bureau of Educational Research, Ohio State University, and a group of elementary teachers. Preliminary studies conducted using the scale indicated that it had high consistency with teacher and parent judgments as to the social acceptance of individual children.

Battle (1954), in Phase I of the Florida-Kellogg Leadership Project, extended the use of the OSAS by testing it for validity at the secondary level. He found that coefficients

of correlation between the OSAS and teacher rankings of student acceptance for eighteen classes was .63, or almost as high as that of elementary classes. Battle concluded that "the instrument was sufficiently reliable and valid to be an effective instrument for measuring one aspect of pupil human relations" (Battle, 1954, p. 185).

The instrument contains five paragraphs describing degrees of friendship on a continuum from "My very, very best friend" to "Dislike them." Each student was presented with a copy of the five descriptions and a class roll. They were asked to assign a number representing one of these descriptive paragraphs next to each student's name as it appeared on the roll. Mean scores were derived for each student with a low score indicating greater acceptance by peers.

Battle Student Attitude Scale

The Battle Student Attitude Scale was developed as a part of the Kellogg-Florida Leadership Project. The original instrument consisted of sixty items designed to measure attitudes of sixth-, ninth-, and eleventh-grade students toward self, fellow students, teachers, principal, and the school as a whole. For this study ten items were deleted from the original instrument as they were not thought to be relevant for students in a laboratory school.

Validity of the original instrument was defined in terms of correlation with two previously existing student attitude scales. Split-half reliabilities varied from .88 to .94. Battle also found that scores obtained on his instrument differentiated between classes and between schools in accordance with teacher and research-team judgments. The reliability of the shortened form of the instrument would be expected to approximate .85.

The Battle Student Attitude Scale (modified form) presents students with fifty negatively stated items covering attitudes toward self, other pupils, teachers, and the school. Examples of types of questions contained on this instrument include, "I think that some of my teachers seem to feel that they are always right and the student is always wrong" or "Students at this school do not try to help other students who are in trouble." Students respond to each of these fifty statements on a three-point scale as "mostly true," "sometimes true/sometimes false," or "mostly false," with a high score indicating a positive attitude toward school.

The Florida Key

Self-concept data on students included in this study were obtained through the use of the Florida Key (Purkey, Cage, & Graves, 1973). The Florida Key consists of descriptions of eighteen classroom behaviors such as "speaks up for his own ideas?" or "gets along with other students?" Teachers rate each student according to the frequency with which the specified behaviors have been observed. The Florida Key is constructed on a six-point scale with five being the score of highest frequency. The higher the total score, the higher the inferred learner self-concept of the student.

While this instrument yields four subscores in addition to a total score, for the purpose of this study only the mean total score for each pupil was used as the measure of inferred self-concept. A total split-half reliability coefficient of .93 and an inter-rater reliability of .84 have been obtained for this instrument (Purkey, Cage, & Graves, 1973).

Socioeconomic Status

Father's occupation, as recorded on each student's permanent record, was used as the basis for estimating the socioeconomic status of the family. Each occupation was translated into one of the seven ratings contained on Warner's Revised Scale for Rating Occupation (Warner, Meeker, & Eells, 1949, pp. 140-141).

This occupational rating scale was developed by Warner and his associates at the University of Chicago as an efficient method of predicting social class in the communities they were studying. The Revised Scale for Rating Occupations takes into account source of income as well as degree of skill and the prestige value assigned to a job. A validity study undertaken in conjunction with their study of 303 families in Jonesville revealed high correlations between occupational ratings and the Evaluated Participation method of predicting social class. This latter method is based upon interviews, association data, clique material, and other direct evidence of social-class status.

Grade-Point Average

Grades are awarded to students in this school on the basis of a four-point system. These grades are recorded on the student's permanent record filed in the guidance office. Using individual course grades, a final grade-point average was calculated for each student for the 1971-1972 and 1972-1973 academic years.

School and College Ability Test (SCAT)

Through the 1971 academic year all ninth-grade pupils in Florida were required to participate in the Florida Statewide Ninth-Grade Testing Program administered by the University Test Service, Department of Educational Research and Testing, Florida State University. This test contained two sections, one measuring aptitude and the other achievement. The aptitude test is a restricted form of the School and College Ability Test (SCAT II) developed by Educational Testing Service. The SCAT is designed to provide an estimate of a pupil's ability to achieve in school programs. This instrument provides a verbal and a quantitative score as well as a total one. The total aptitude score obtained by each of the students in this study was used as the measure of ability in predicting grades most likely to be received.

Data Analysis

By use of the aptitude score obtained by each pupil, a predicted grade-point average was calculated using linear regression analysis procedures. A mean grade-point average was determined for each of the cliques. Differences for each student were then determined between (1) his predicted and actual grade-point average, and (2) his actual grade-point average and the mean grade-point average of the clique to which he belonged. By means of a series of F tests these data were analyzed to determine whether the clique or the aptitude score were the better predictor of the grades received by the students. Since direction was not predicted in advance, a two-tailed test was used, i.e., .995 from F tables were used for .01 level and .975 for .05.

A similar approach was used in examining the school attitude and social acceptance data. The difference was that the base for calculating the predicted score on the school attitude, social acceptance, and self-concept measures was the mean score for all females or the mean score for all males on the appropriate instrument.

The Procedures

The following is a summarization of the procedures, as described in other sections of this chapter, used in conducting this study:

1. Collection of observation data beginning in the fall of 1971 and continuing until the spring of 1973 (summer excluded).

2. Members of the class of 1975 were administered two pretest measures, one of school attitude and the other on acceptance by peers (fall, 1971).

3. Study of Man (social studies-language arts) teachers completed an inferred learner, self-concept scale on all students (fall, 1971).

4. Father's occupation was taken from school records and converted into a code consistent with Warner's Revised Occupational Scale.

5. Teachers were interviewed on their perceptions of student friendship patterns (spring, 1972 and spring, 1973).

6. Ten students, forming a cross section, were interviewed on their perceptions of student friendship groups (spring, 1972 and spring, 1973).

7. A final chart of the clique structure for the first year of the study was developed based upon observations and interview data.

8. Grade-point averages for the freshman year were computed using individual course grades as recorded on guidance department student records.

9. Posttest measures on school attitude and peer acceptance were administered (spring, 1973).

10. A clique chart was developed for the second year based upon observation and interview data.

11. The grade-point average for the 1972-1973 school year was calculated using individual course grades as recorded on individual student records in the guidance office.

12. Data analysis proceeded with predicted scores being calculated for all students on the grade-point average, school attitude, and social acceptance. Differences between actual and predicted scores and clique means were subjected to F tests for significance.

13. Discriminant analysis was used to determine if any variable or set of variables could be used to predict clique membership.

Limitations of the Study

Because of the design used in this study its limitations should be clear to the reader as an aid in interpreting the significance of reported results.

1. This is an exploratory field study in which no attempt has been made to manipulate any of the conditions affecting the dependent variables. Thus, causality cannot be attributed to the associations reported.

2. Only one class of students within a single school has been included in this study. Replication of results may be called for.

3. While the school has made efforts to obtain a representative student population, nevertheless, reference to the section on the study sample will confirm that these students are still drawn heavily from the upper-middle class.

4. All observational data on the students were collected during school hours. No efforts were made to follow the students to various off-campus locations because of the wide geographic area from which students are drawn to this school.

5. Only a limited number of dependent variables have been selected for examination. It is possible that others could be more strongly associated with particular clique membership.

Chapter III

RESULTS

This chapter is divided into two major sections. The first discusses the social structure observed among members of the class of 1975 at the P. K. Yonge Laboratory School. This section examines the friendship patterns found to exist among the students during their freshman and sophomore years. The second portion of this chapter discusses the relationships found to exist between clique membership and academic achievement, social acceptance by peers, school attitude, and inferred learner self-concept. Data from both 1971-1972 and 1972-1973 are included in the discussion.

The Social Structure of the Class of 1975

The observation techniques discussed in Chapter II were used to define relationships among pupils. Classrooms at P. K. Yonge are not characterized by rows of desks; most classrooms have an assortment of differently shaped and sized tables which were continually being rearranged. At the beginning of each period students would enter the classrooms in small clusters. Group members would claim a table and position it in an area within the room in which they felt comfortable. Except for special teaching situations, these pupil-arranged seating patterns were not disturbed. It was thus possible to observe friendship patterns within each classroom.

Students were also easily observed in several other situations. All students were required daily to attend a Study of Man class (language arts and social studies). Within this block of time students were given a ten-minute break and could be observed lounging on the sidewalk in front of their classrooms in clearly demarcated groups. Lunch was another time of day suitable for observing patterns of student interaction. In the ninth and throughout most of the tenth grade students were not permitted to leave campus during lunch. Not only did students daily eat with the same group of friends, but their tables, and often even their chairs in the cafeteria could be predicted. Changes in these patterns were a clue to tensions among friends. And, as would be expected, the time before, after, and between classes provided an opportunity to observe students; regularities existed in the locations on

campus where certain groups of students were likely to be found at various times of the day, though these changed throughout the year.

From observations conducted in these locations, four clearly defined types of relationships were found to exist among students within the class:[3] (1) the majority of both males and females belonged to friendship groups composed of three to eight members, with an average size of five; (2) close friendship pairs were also a common grouping pattern, though somewhat less so among males; (3) some students were identified as loners--that is, they had loose, casual relationships with other students but were not considered an integral part of the group and were often alone; (4) a few students having no observed or reported social interactions with any other student in the school were identified as isolates. With two exceptions, which are discussed later, cliques were composed of same-sex and same-race students.

Figures 2 and 3 represent the social structure of the ninth and tenth grades respectively. Clique members are connected by solid lines. Very close friends are connected by double lines. Loners generally had at least one group of friends within the class with whom they were occasionally observed; because they were not integral parts of these groups, their relationship to these students is shown by a dotted line. Isolates, on the other hand, are shown without any attachments to other students in the class. They were not well accepted by their peers nor did they appear to be making any effort to establish a friendship with any other student in the class.

The position of "loner" needs some elaboration; it was a role with many facets and students fulfilled it in a number of ways. Some students enjoyed being loners. They either preferred their own company, or they liked a wide variety of students and refused to be tied to any particular group. Students who fit this description of loner generally had good grades, were well accepted by peers, and had a positive attitude toward school. But there were other loners who appeared to be trying to gain entree into specific groups. Sometimes these students were allowed to "hang

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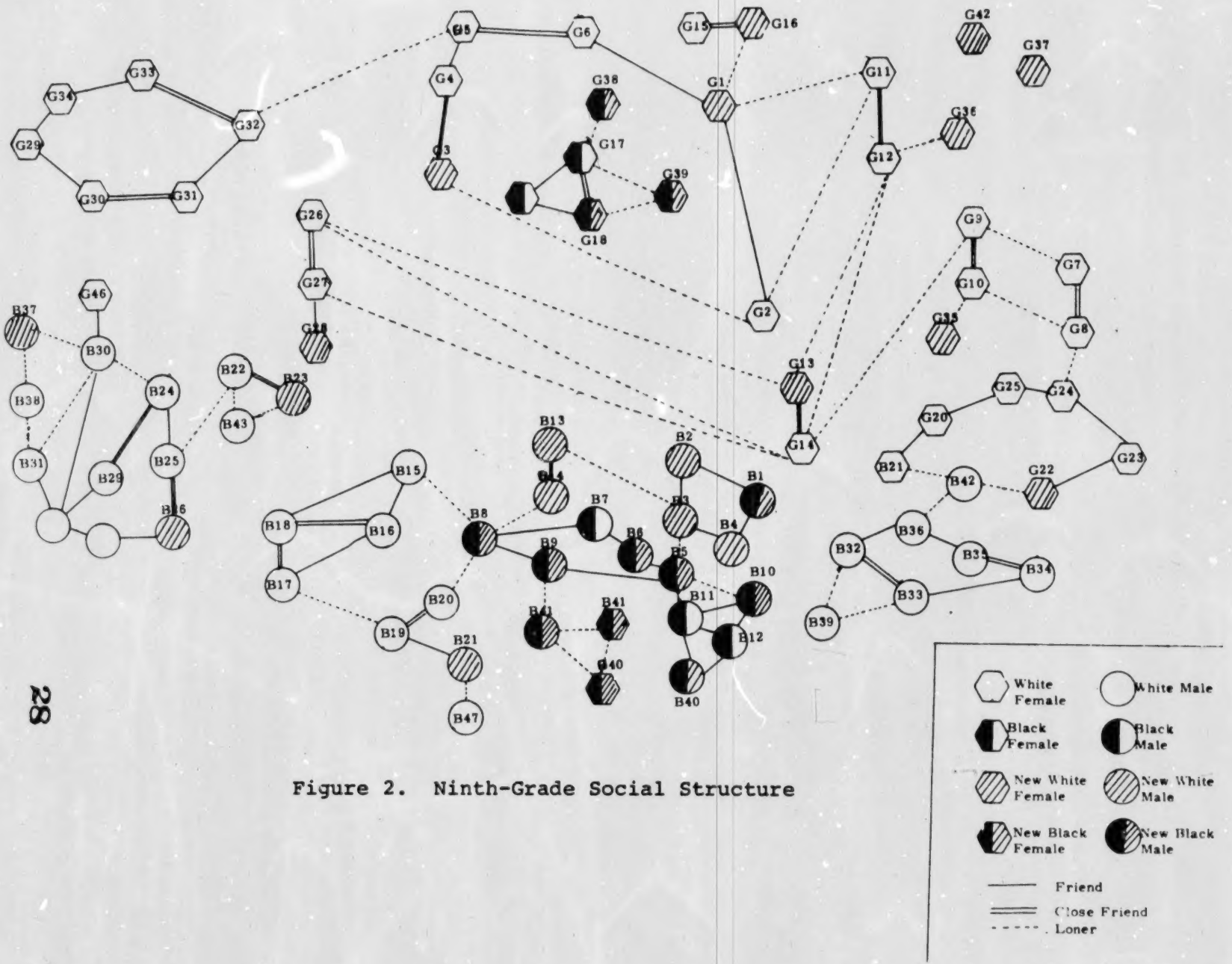
[3]Unless a distinction is made between those students who belong to groups of three or more members and those of only two members, the term "clique" will be considered to encompass both categories. Additionally, isolates are considered a subcategory of "loner" unless otherwise specifically designated.



White Female
White Male
Black Female
Black Male
New White Female
New White Male
New Black Female
New Black Male
Friend
Close Friend
Loner

Figure 2. Ninth-Grade Social Structure

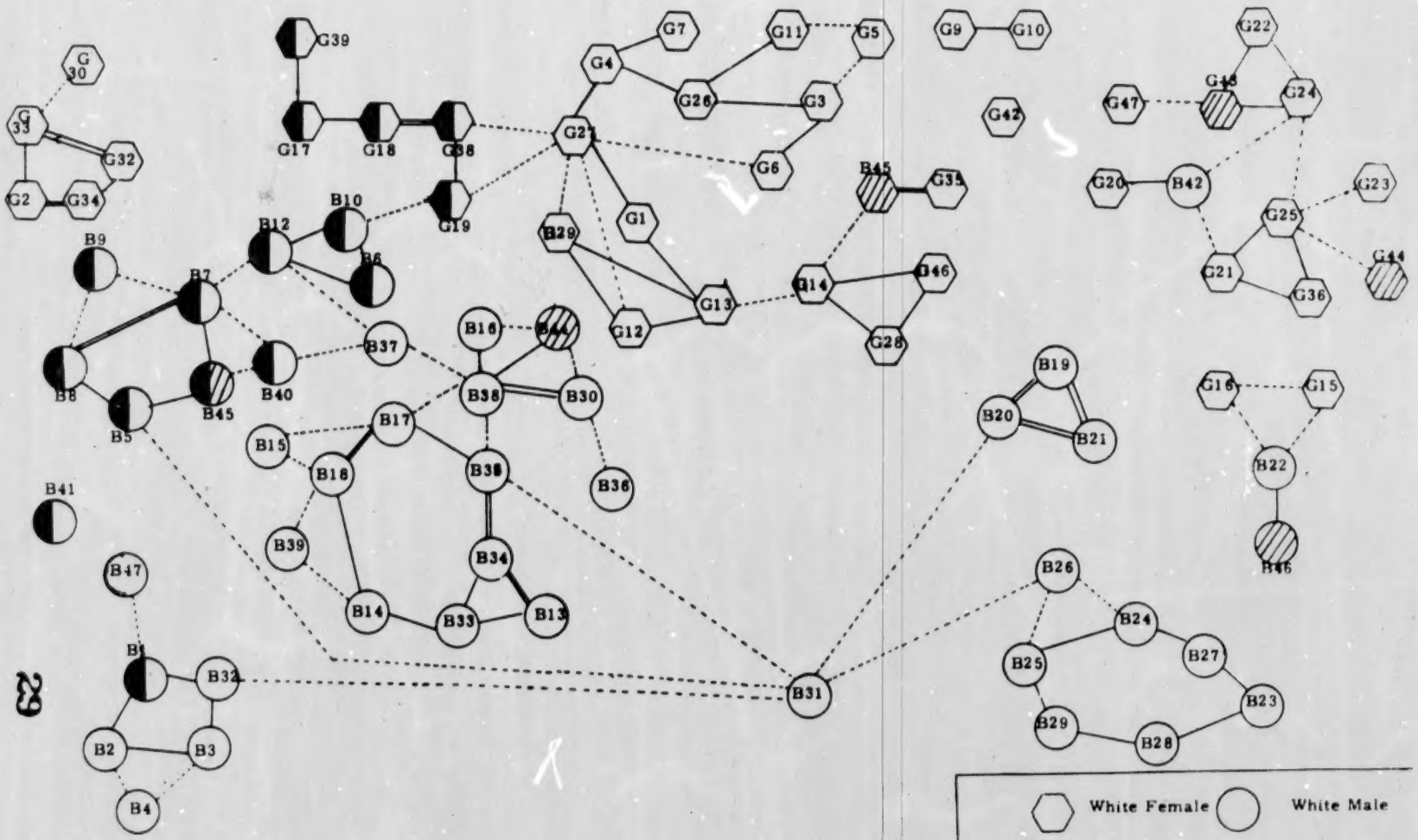


Figure 3. Tenth-Grade Social Structure

around" the clique which they wished to join and sometimes they were rebuked; the specific response tended to vary according to the personality and sex of the clique members. Thus, some of the loners within the class appeared quite happy with their status while others were struggling to achieve some sort of group identity.

Ninth Grade Social Structure

The females within the freshman class divided themselves into five cliques of three or more members, five dyads, seven loners, and two isolates. Only seven of the fifteen newly admitted females established friendships during their first year at the School. Three of the five female cliques accepted one new student each; one clique accepted two, and one none. Only two of the five female friendship pairs were comprised of a new student and one previously in attendance at the School. New females who were not accepted into an existing clique or did not find a former student for a friend remained loners all year. Thus, tragically, all of the eight females who were classified as loners in the ninth grade were new students; three of them withdrew from the School at the end of the year.

Table I provides a comparison between those new females who were incorporated into the social structure of the grade and those who were not. Four of the five new black females spent the year as loners; the other formed a clique with two black girls who had been students at the School for some time. When the seven females who became clique members are compared to those who were not accepted into groups, some differences become apparent. The median aptitude score of the accepted females was 40 percentile points higher than that of the nonaccepted; this difference is reflected in a higher grade-point average for clique members. Concurrently, their learner self-concept scores (inferred) were higher. As would be predicted, those girls who became part of friendship groups showed more acceptance by peers (the lower score); they also had a more positive attitude toward school (the higher score). There was no apparent association between father's occupational status and acceptance into a peer group.

Among the males in the ninth grade were seven groups of three or more members, three friendship pairs, and six loners. Of the seventeen male students new to the class of 1975, only three became members of groups composed of three or more former students and only one established a close friendship with a former student. However, this did not leave the remaining thirteen new students friendless. Indeed, only three

Table I

Characteristics of New Ninth-Grade Females: A Comparison Between Those Who Became Clique Members and Those Who Became Loners

Students	Sex	Race	Aptitude Score	Grade-Point Average	Inferred Learner Self-Concept	Social Acceptance	School Attitude	Father's Occupational Status
Clique Members								
G-1	F	W	99	3.43	5.0	159	n/a*	1
G-3	F	W	96	3.69	4.9	174	133	1
G-13	F	W	98	3.00	3.7	174	130	1
G-15	F	W	95	3.40	3.7	174	115	3
G-18	F	B	66	3.32	3.3	168	128	2
G-22	F	W	47	3.07	3.5	205	121	3
G-28	F	W	95	3.81	3.8	170	129	1
Means			95 (median)	3.39	4.0	174.85	126.0	
Loners								
G-35	F	W	95	3.64	4.9	219	116	2
G-36	F	W	90	3.60	4.4	191	113	1
G-37	F	W	n/a	2.50	4.1	217	130	1
G-38	F	B	55	2.46	3.7	183	114	7
G-39	F	B	26	n/a	3.3	184	102	3
G-40	F	B	24	1.96	2.2	189	132	n/a
G-41	F	B	43	n/a	2.9	184	97	n/a
G-42	F	W	95	3.43	2.7	232	121	2
Means			55 (median)	2.93	3.5	199.87	115.6	

*n/a - not available

of these new male students failed to establish friendships. The remaining ten new male students banded together to establish several of their own cliques. As a result, there were two large cliques and one friendship pair composed solely of new students. One of these groups was composed of three white students and one black student. This black student was never accepted by the other black students in the class.

Table II provides a display of the scores achieved by new male students. This table is divided so that the scores of the fourteen students who established clique relationships are grouped together and the three new male students who failed to become incorpcrated into a clique are grouped together. Means have not been included for male-clique members because of the number of different cliques represented. Ranges of scores obtained on the various measures have been included for those students who became clique members. Because there were only three new male students who became loners, and they had little in common either with respect to their responses on the instruments or in their observed behavior patterns, no summary data are included on them in Table II.

Two of the three male loners were black. Both had low aptitude scores, but varied in their levels of academic achievement. B-40 overachieved, given his aptitude score, and, according to his social acceptance score, was well liked by his peers even though he was a loner. He became semi-attached to one of the black male groups. B-41 was also overachieving, but only slightly. He seemed to fit the stereotype of the heavy, bumbling student whose presence constantly annoyed other students. Neither of these two black students had very positive attitudes toward school; both were below the mean of 112.81 for all the males in the class.

The only new white male to spend the year as a loner had a high aptitude score, high grades, high learner self-concept, was well liked by his peers and had a positive attitude toward school. He appeared to be well accepted by most students in the class. In fact, he was considered by the interviewed students to be the type of person whose opinion would be sought on a variety of topics. His movement among clique groups was not hampered by ties to any one particular group.

Table II also indicates that students from homes of varying occupational status were able to establish clique membership while other students, from the same status, were not able to accomplish this feat.

Table II

Characteristics of New Ninth-Grade Males: A Comparison Between Those Who Became Clique Members and Those Who Became Loners

Students	Sex	Race	Aptitude Score	Grade-Point Average	Inferred Learner Self-Concept	Social Acceptance	School Attitude	Father's Occupational Status
Clique Members								
B-1	M	B	50	3.28	4.9	164	116	4
B-2	M	W	90	3.46	3.8	193	116	1
B-3	M	W	85	3.35	3.1	214	144	2
B-4	M	W	90	2.85	3.9	214	124	2
B-5	M	B	38	3.12	3.9	153	116	6
B-6	M	B	13	2.70	2.3	192	102	5
B-8	M	B	34	2.77	n/a*	190	109	6
B-9	M	B	21	2.49	3.6	184	98	5
B-10	M	B	20	2.12	2.4	209	89	5
B-13	M	W	95	3.42	2.9	202	141	1
B-14	M	W	99	3.33	3.4	203	130	1
B-21	M	W	88	2.57	3.1	203	109	2
B-23	M	W	18	1.64	2.4	191	134	1
B-26	M	W	94	2.73	3.1	177	138	1
Range			13-99	1.64-3.46	2.3-4.9	209-153	89-144	
Loners								
B-37	M	W	99	3.85	4.3	171	122	1
B-41	M	B	6	1.65	3.6	238	98	6
B-40	M	B	35	2.50	3.3	169	100	2

*n/a - not available

Of particular interest was the contrast between the friendship patterns of newly admitted males and females. It will be recalled that the seven females who managed to establish themselves within the clique structure did so by joining with groups of former students. But only four of the fourteen males who became clique members joined with former students; the remaining ten established cliques composed of all new males. Females who were not accepted by former students became loners. But the males appeared more adaptable; if they were not accepted by the former students, they established their own cliques. Consequently, only three of the new males, as opposed to eight of the new females, spent their first year at the School as loners. There was thus a very distinct difference in the manner in which new males and females moved into the social structure of the school. The question can be raised as to whether participation in cliques composed of all new students constitutes acceptance into the social structure or the establishment of a separate structure. Because of extensive cross-clique communication observed among the males, the possibility of separateness may have been lessened somewhat.

Several other behavioral characteristics served to distinguish between the males and females. Both had similar types of friendship groupings, but the ways in which they worked differed. The female groups were more closed to nonmembers. A girl attempting to gain entrance into a group would be observed taking a seat by the group in class, standing close beside them on the sidewalks during breaks, or sitting at their table at lunch. Such attempts at friendship were, at best, ignored and, at worst, openly rebuked. Frequently, an outsider making these overtures would find backs turned to her or, if she persisted, statements would be directed to her such as "go away, leave us alone." These behaviors were not typical of the males in this class. They appeared to be more open to communication with students outside their immediate circle of friends. A male outsider attempting entrance into a group would generally be tolerated, though not encouraged. One hypothesis for this behavior, which deserves exploration, is that males have athletics as a vehicle for drawing groups together. On a team they cooperate in competition against an opposing team. Females do not have this avenue readily available to them. At the same time, there has been a continual decrease in student participation in the extracurricular activities which traditionally have been available in high schools. Until something takes their place, there is little opportunity for girls to work cooperatively across cliques. A more closed social structure among the females might, therefore, be expected.

Differences were also observed between black and white students. There was only one black female clique composed of three members--two former students and one new one. The remaining four black females spent their freshman year as loners. All black females, including those who belonged to a clique, spent their freshman year socially isolated from the white students. Black males, however, did not experience this isolation from white students. While all but one of the black males belonged to all-black groups, they had extensive interaction with white males and females. Indeed, this last point may have been a prime reason for the maintenance of social distance between white and black females. While black males at this School dated the white females, the white males did not date the black females--at least, this behavior was not observed during school hours. In a class where the number of black males was limited, competition for their attention may have been a contributing factor to the lack of interaction between black and white females.

Tenth Grade Social Structure

Figure 3 illustrates the student groupings observed during the tenth grade. During the sophomore year there were seven female friendship groups of three to eight members, three friendship pairs, six loners, and one isolate. The males divided themselves into seven groups of three to seven members, one friendship pair, and twelve loners. There was thus an increase of one in the number of female groups between the ninth and tenth grades and a decrease of two among the males.

Figure 4 illustrates changes in students' positions within the class social structure between the ninth and tenth grades. Through observations and interviews it was determined that twenty females and eleven males changed friendship groups.

The typical pattern observed among the females was for an existing group to lose one or two members and/or to take in one or two new ones. Even where changes were recorded, links tended to remain between former friends. Only two totally new groups emerged during the sophomore year. Thus, the female system within this grade could be considered relatively stable. This pattern was basically replicated among the males, but with fewer changes in groups.

The group formation process, however, did vary between males and females. Of the eight females who were observed to be loners in the ninth grade, only one remained in that

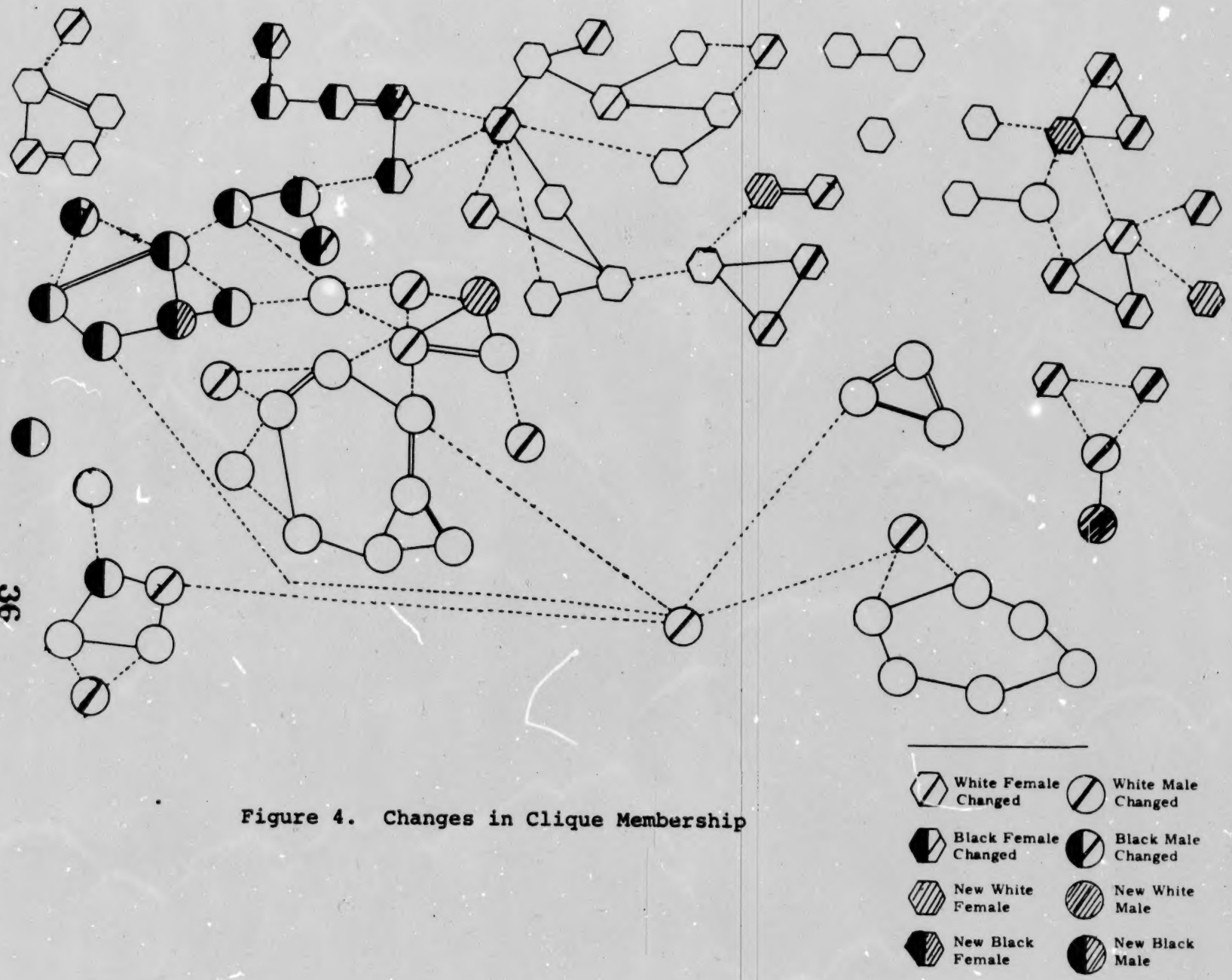


Figure 4. Changes in Clique Membership

role during the tenth grade--one of the isolates. Four of these eight girls joined cliques and three transferred from P.K. Yonge to their assigned public school. Instead of the sophomore class being left with only one female loner, six girls took their places, only one of whom was new to the grade that year. Among the males there was also movement into and out of the role of loner. Of the seven males classified as loners in the ninth grade, four remained in this role throughout their sophomore year. These four included the group of three who had been new to the School the previous fall. Of the three who changed status, one withdrew from the School, one joined a male clique, and one established a close friendship with a female. Between the ninth and tenth grades, eight males who had belonged to groups assumed the new role of loner. This meant that nearly one-third (12) of the tenth grade males were loners.

In summary, it took females longer to become incorporated into the class social structure--but the majority of them managed this feat. With one exception, those females who did not gain peer acceptance withdrew from the School, an option generally not available to secondary students. The males who entered the School in the ninth grade and failed to become group members, remained loners throughout the two years covered in this study. However, it will be recalled that the majority of the new males formed their own cliques. The large number of males recorded as loners in the tenth grade raises the question of whether clique relationships remain more potent for females than males over time. This question was not addressed in this research.

The black females in the grade banded together to form one large clique. This group was composed of the three original friends from the ninth grade plus two black females who had been loners the previous year. Their grades ranged from 2.07 to 2.92 with a mean of 2.55. They received social acceptance scores from their peers that were slightly more accepting than the mean for all females. Their attitude toward school showed wide variation, ranging from very low to above the class mean. Two of these girls were selected as cheerleaders at the beginning of the tenth grade; this helped establish links between the black and white females in the class. However, extensive interaction between the white and black females was never reported nor observed.

One black male remained a part of a clique which included three white males. In addition, there were two separate all-black male cliques and two black male loners. Both of the all-black male cliques differed in regard to patterns of achievement, acceptance, and attitude. For instance, all the students in one of these cliques were well accepted by their

peers, had positive attitudes toward school, and good academic records. Similarly, the black male in an otherwise white group was well accepted by classmates, had a positive attitude toward school, and good grades. The members of the second all-black male clique differed in all respects. They were not particularly well liked, were below average in attitude toward school, and had low grades. The two black male loners differed from each other only on degree of social acceptance by peers; one was well accepted while the other was one of the least-liked students in the grade. Neither of these two loners had positive attitudes toward school, and both were achieving around 2.50.

Even though the black cliques maintained separate group identities, they located themselves in the general vicinity of each other at various places around the School's campus, having a preference for the walkways near the gym. As an indication of their racial solidarity, every one of them rated all the other black students in the class as "My very best friend" on the Ohio Social Acceptance Scale despite observed and reported differences among them. This may be taken as evidence that the black students perceived the social distance between themselves and the whites as greater than that between cliques. While racial solidarity was evident from the scores received and given on the social acceptance measure, there were some cross-racial selections. The black male who belonged to a white clique was frequently selected by whites as a best friend and frequently viewed whites in this capacity. Four other black students, two males and two females, were also selected as friends by white. These four black students did not select any white student as a friend. Social acceptance data collected from these students would thus tend to confirm observation and interview data that the white and black students maintained separate social systems within the school.

Clique Membership and Academic Achievement

One of the purposes of this study was to determine if there were any relationships between clique membership and academic achievement. To do this, aptitude scores on the Statewide Ninth Grade Test were used to predict individual students' grade-point averages using a linear regression analysis formula. Differences were then calculated between each student's actual and his predicted grade-point average and his actual grade-point average and the mean grade-point average of the clique to which he belonged. A series of F tests were used to analyze these data to determine whether the clique or the aptitude score were the better

predictor of the grades received by students. If aptitude score were the better predictor of grades received, the F test would not be significant. If grades of clique members were the better predictor, the F test would be significant. Table III summarizes these data for the ninth-grade class.

The data in Table III indicate that for the students in this class the grades of clique members were a better predictor of an individual student's grades than his aptitude score. This was true at the .001 level for all females, all females and all males when these two groups were combined, and white females (this relationship was likely to occur by chance only one time in a thousand). These data were significant at the .01 level for all males and white males and at the .05 level for black males. The lack of significance among black females may be attributable to the small number of students who fell into this category. If group membership did indeed have some relationship to the grades received by students, it would be expected that loners, lacking this group identity, would not have their grades predicted by the grades received by other loners--loners did not use each other as a reference group. The anticipated lack of significance for these students was found as indicated in Table III.

Table III

Variances From Predicted Grade-Point Average and Clique Grade-Point Average, Ninth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted GPA	Mean Square Difference From Clique GPA	F
Females	31	5.8584	1.5564	3.764***
Males	34	9.2193	2.8663	3.216**
Females and Males	66	7.5010	2.2076	3.398***
White Females	28	5.3585	1.2479	4.294***
Black Females	2	.4999	.3085	1.620
White Males	26	4.7669	2.0573	2.317**
Black Males	7	4.4524	.8090	5.504*
Male Loners	5	.2415	3.5230	3.282
Female Loners	4	.0979	2.3618	2.264

[a]Groups exclude students classified as loners unless otherwise specified.

*p = <.05.
**p = <.01.
***p = <.001.

The procedures outlined to determine the relationship between clique membership and academic achievement for students during the ninth grade were also used to look for relationships between grades received and clique membership during the tenth grade. Table IV presents a summary of these data. The strong relationship between clique membership and grade-point average is again evident. The data indicate that this relationship was found to exist at the .001 level of significance for five of the groups: all females, all males, all males and females, white females and white males. The clique was found to be the better predictor of grades for black males at the .05 level. For the second year in a row the data on the black females were not significant. This may be attributable to the small number of black girls in the class. An alternative hypothesis would be that they were a clique based on race rather than mutual interest. Again, as predicted, membership in the loner category was not associated with the attainment of similar grades by loners.

Table IV

Variances From Predicted Grade-Point Average and Clique Grade-Point Average, Tenth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted GPA	Mean Square Difference From Clique GPA	F
Females	34	8.8182	1.7697	4.9828***
Males	31	10.5683	3.0005	3.5221***
Females and Males	66	9.5066	2.3210	4.0959***
White Females	29	7.2544	1.2983	5.5876***
Black Females	4	1.5638	.4714	3.3173
White Males	24	8.1285	2.5824	3.1476***
Black Males	6	2.4398	.4181	5.8354*
Male Loners	11	1.7841	3.9014	.4572
Female Loners	6	1.3382	1.8132	.7380

[a]Groups exclude students classified as loners unless otherwise specified.

*p = < .05.
**p = < .01.
***p = < .001.

Were these relationships discovered because students of similar ability became friends? Within female cliques, the mean range in percentile scores on the aptitude measure was 23

(excluding loners) with one clique having as much as a 60 percentile range among members. The males within cliques had a mean range in aptitude scores of 32 percentile points (excluding loners) with one group recording a range of 79 points. Thus, students in the tenth grade were not establishing friendships based upon potential for academic achievement, rather the achievement was following the clique membership. Consequently, from the data collected over two years, it appears that clique membership, for the students in this class, was a better predictor of grade-point average than their aptitude scores.

Clique Membership and Social Acceptance

The Ohio Social Acceptance Scale was used to measure social acceptance among students in the class of 1975. This instrument defines social acceptance in terms of social distance between individuals. A procedure similar to that used to determine the relationship between clique membership and grade-point average was used to determine whether there were any relationships between clique membership and social acceptance. Because a measure similar to the aptitude score was not available as a predictor of social acceptance, the mean social acceptance score received by all the females in the class was used to predict female acceptance and the mean for the males was used as the predictor of their social acceptance. For the ninth grade the predictive score was 174.059 for the females and 184.75 for the males. On this instrument, the lower the score, the greater the acceptance by peers.[4]

Table V presents the summary of these data analyses. It indicates that for all females and white females clique membership was significantly related (at the .01 level) to acceptance by the other students in the class. A relationship significant at the .05 level was found for all males, but disappeared when males were separated into white and black subgroups. It would seem from these data that a student's perception of the social distance between himself and another student was in part a function of the

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[4]In a school with a variety of extracurricular activities it might have been possible to have developed an index of participation which could have been used as the predictor. Since this situation did not exist at this school, the mean social acceptance score for males and for females was the only available measure for use as a predictor.

clique to which each belonged. However, because both this class and school were small, students may have known and accepted members of other cliques to a greater extent than would occur in a larger high school. The important aspect of these data may be that significant relationships were found to exist between social acceptance and clique membership even within this small group of students. The extent to which this phenomena varies among schools of various sizes deserves further exploration.

Table V

Variances From Predicted Social Acceptance Scores and Clique Social Acceptance Scores, Ninth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted Social Acceptance	Mean Square Difference From Clique Social Acceptance	F
Females	33	11,863.8640	4,100.8350	2.8930**
Males	35	12,825.3350	6,535.9950	1.9622*
Females and Males	69	12,179.6266	5,276.6286	2.3082**
White Females	30	11,334.7370	3,572.1680	3.1730**
Black Females	2	529.1270	528.6670	1.0008
White Males	61	10,578.3310	5,374.5280	1.9682
Black Males	7	2,247.0040	1,161.4670	1.9346
Male Loners	6	4,392.4375	4,386.8540	1.0012
Female Loners	7	6,310.0880	3,400.0000	1.8343

[a]Groups exclude students classified as loners unless otherwise specified.

*p = <.05.

**p = <.01.

Table VI presents the same data on these students, but collected at the end of their sophomore year; for this year the female predictor score was 212.67 and the male predictor score was 219.09. Comparisons between the tables reveals an interesting pattern. The significant relationship between clique membership and social acceptance for females declined and became nonexistent except when they were grouped with the males. All males and white males, however, continued to display a significant relationship between their clique membership and the level of social acceptance accorded them by other students. A possible explanation of this change might be the fact that more females than males changed clique groups

between the ninth and tenth grades thus extending the range of their relationships to a larger spectrum of females within the class.

Table VI

Variances From Predicted Social Acceptance Scores and Clique Social Acceptance Scores, Tenth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted	Mean Square Difference From Clique	F
Females	34	8,821.2142	5,820.9495	1.5154
Males	31	17,409.3543	8,158.2617	2.1339*
Females and Males	66	12,721.3828	6.8305	1.8624**
White Females	29	8,295.6621	5,523.7495	1.5199
Black Females	4	425.5521	297.2000	1.4318
White Males	24	14,384.9334	6,876.8451	2.0917*
Black Males	6	3,024.4209	1,281.4166	2.3602
Male Loners	11	8,498.7272	8,218.7500	1.0340
Female Loners	6	3,087.5029	3,400.8571	.9078

[a]Groups exclude students classified as loners unless otherwise specified.

*p = < .05.

**p = < .01.

It will be noted that clique membership did not significantly affect the social acceptance of the black students. A detailed analysis of social acceptance scores revealed that black students gave all other black students in the class, regardless of clique, a rating of "my very best friend." The Ohio Social Acceptance Scale thus failed to clearly define degrees of friendship among this group of students. When this was discovered it appeared worthwhile to subject all sophomore clique groups to minute analysis to determine what score on the instrument's one-to-five scale clique members had given each other as compared to the scores they were given by other students in the class. (Freshman data were not collected in a form which would permit this type of analysis.) The ability to discriminate degrees of friendship was found to vary widely. Some students selected half the class as "My very best friend" even though they were never seen in these students' company nor was the selection reciprocated. On the other hand, some students failed to select anyone in the class as a best friend even though they were members of tight cliques reported to have been in existence since the

early elementary grades. The conclusion seems warranted that social acceptance scales may define social status within a class but are not sensitive enough to be used to define an existing clique structure.

Table VII was constructed to display visually differences between the mean social acceptance score received by clique members from all students in the class and the mean social acceptance score they gave each other. The trend is predominantly in the direction anticipated--students gave their clique members more positive scores than the cliques received from all students. Three of these groups, however, appear to need some explanation: G-13, G-22, and B-24. G-13 was a new group of girls with one member who did not appear to be totally integrated. In addition, the girls in this clique tended to select the class leaders as best friends rather than each other. Their selections did not correspond to reality. G-22 was a trio of females that would probably not last. One of the girls was well accepted by her two friends, but she selected only males as best friends; observations, however, do not indicate that she was highly sought after by the males. The male group, B-24, also needs some explanation. This was a large group that had been in existence, with few minor changes, for a number of years. None of these students gave each other, or anyone else, a rating indicating an especially close friendship. One of the group members appeared to be on the way out--he was still well accepted by most but received low ratings from several other group members. No reasons for this change were identified through observations or interviews.

During the ninth grade the mean social acceptance of female groups varied between 2.24 and 2.99 on the five-point scale while individual girls received scores ranging from 2.16 to 3.51. A low score indicates a greater level of acceptance by peers. During the tenth grade scores for groups varied from 2.56 to 2.91 while individual scores ranged from 2.31 to 3.02. In the ninth grade males received means of 2.15 to 3.60 and groups varied from 2.33 to 3.10. In the tenth grade males received 2.11 to 3.32 and groups from 2.40 to 2.95. For the females the ranges of acceptance were similar for individuals and cliques between the ninth and tenth grades. The males and their cliques showed a greater range in acceptance scores than the females; this range had decreased somewhat by the end of the study. These data may indicate that students in the class perceived greater differences among the students belonging to male groups than to those belonging to female groups. This hypothesis, however, raises several questions relative to the types of communication observed among male

cliques; other data have indicated greater interaction among male groups than among female groups.

Table VII

Comparison Between Those Social Acceptance Scores Given by All Students and Those Given by Clique Members, Tenth-Grade Students

Clique*	Mean Social Acceptance Given by All Students	Mean Social Acceptance Given by Clique Members
G-27	2.56	2.07
G-13	2.75	2.50
G-33	2.61	1.00
G-14	2.62	n/a**
G-19	2.63	1.40
G-9	2.68	1.00
G-20	2.73	2.00
Loners	2.79	2.58
G-25	2.81	1.17
G-22	2.89	3.00
G-35	2.91	1.50
B-30	2.41	1.83
B-5	2.56	1.08
B-17	2.65	1.62
B-22	2.66	n/a
B-1	2.80	1.50
B-24	2.83	2.70
Loners	2.83	2.90
B-21	2.86	1.50
B-10	2.95	n/a

*Cliques preceded by a G are composed of females and B of males.

**n/a - not available

Clique Membership and Attitude Toward School

It would be anticipated that frequent interaction among students within cliques would lead to a consensus in attitudes toward school. An F test was again used to test the relationship between clique membership and attitude toward school. Because other measures were not available to predict school attitudes, the mean school attitude score for the females was used as their predictor and the mean school attitude score of the males as their predictor. By use of this

approach, data were analyzed on the students from their freshman and sophomore years. Table VIII reports these data for the ninth grade: 116.6 was the predictive score for females and 112.81 for the males (the higher the score, the more positive the attitude toward school).

Table VIII

Variances From Predicted School Attitude Scores and Clique School Attitude Scores, Ninth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted School Attitude	Mean Square Difference From Clique School Attitude	F
Females	31	5,245.7600	4,126.2000	1.2713
Males	34	7,723.5527	2,634.5667	2.9316**
Females and Males	66	6,442.7174	3,295.2646	1.9551**
White Females	28	4,628.0700	3,581.5334	1.2922
Black Females	2	617.6800	544.6666	1.1340
White Males	26	5,502.7290	2,299.9000	2.3925*
Black Males	7	2,220.8237	334.6666	6.6359*
Male Loners	6	1,445.9822	1,220.8570	1.1843
Female Loners	7	510.9200	811.8750	.6298

[a]Groups exclude students classified as loners unless otherwise specified.

*p = <.05.

**p = <.01.

For all males and all females and males there was a significant relationship between clique membership and attitude toward school (.01). When the males were broken down into the white and black subgroups, the significance level of this relationship decreased to .05. Females, as a single group, did not register a significant relation between clique membership and attitude toward school during the ninth grade. Many of the new females who entered the class spent their first year at the school as loners and thus may have missed group pressures toward consensus. On the other hand, it will be recalled that the majority of new males in the class banded together to form cliques of all new students. Attitudes of friends may have exerted a greater influence among males during their freshman year.

Table IX duplicates Table VIII but with data from the tenth grade. During this year the predictive scores were 121.5 for the females and 114.46 for the males. While these mean scores reflect increases for both the groups of students, the increase in favorable attitude toward school of females was of a greater magnitude than that recorded for males.

Table IX

Variances From Predicted School Attitude Scores and Clique School Attitude Scores, Tenth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted School Attitude	Mean Square Difference From Clique School Attitude	F
Females	32	5,501.7500	3,000.8332	1.8334*
Males	24	6,222.8722	2,452.1518	2,5377*
Females and Males	56	5,810.8023	2,765.6840	2.1010**
White Females	27	3,740.5000	2,020.8332	1.8509
Black Females	4	1,761.2500	980.0000	1.7971
White Males	18	4,807.5924	1,816.9018	2.6460*
Black Males	5	1,415.2798	635.2500	2.2279
Male Loners	11	4,132.0868	3,464.0000	1.1928
Female Loners	6	1,817.7500	1,817.4285	1.0001

[a]Groups exclude students classified as loners unless otherwise specified.

*p = <.05.

**p = <.01.

During their sophomore year clique membership was a better predictor of attitude toward school than the mean for either all females or all males for the following groups of students: all females, all males, all females and all males, and white males. The combined group of males and females had a significance level of .01 while the relationships for the other groups were significant at the .05 level. Considering Tables VIII and IX together there is evidence that, at least for some students, the cliques to which they belong are associated in some way with their attitudes toward school. While clique membership may not be the only, or even the most important, factor in the formation of attitude toward school, nevertheless, it contributes significantly to students' perceptions of their school environment.

Females had a range in attitude scores between 85 and 143 while males ranged from 77 to 146. There was also great diversity in attitude toward school among the students in this class. The black cliques had attitudes toward school below the mean but, there were individual black students with attitudes above the mean--their scores were not extreme in either direction.

Rankings of Ninth- and Tenth-Grade Cliques on Grade-Point Average, Social Acceptance, and School Attitude

Because means were computed for each clique on the basis of grade-point average, social acceptance, and school attitude of members, it was possible to rank cliques on these measures from high to low. Tables X and XI present these rankings for ninth-grade females and males respectively. Tables XII and XIII do the same for tenth-grade cliques. The question was then raised as to possible correlations between rank on one measure and rank on the other two. Kendall's coefficient of concordance W was used to determine the relationship among these three sets of ranks for males and females for the two years. The procedure resulted in the following W's:

	Males	Females
ninth grade:	.65**	.71**
tenth grade:	.84**	.48

Those figures with double asterisks were significant at the .01 level. This finding means that, with the exception of tenth-grade females, those cliques which ranked high on one of the measures were also likely to rank high on the other two, and conversely that those cliques which ranked low on one measure were likely to be low on the others. Rank was fairly consistent across the measures included in this study.

An examination of Table XII confirms the conclusion that this group of tenth-grade females varied in their rank order from one measure to another. For instance Clique G-33 ranked tenth on GPA but third on social acceptance and fifth on school attitude. Clique G-35 went from third place on GPA to last place on social acceptance and moved up to a middle position on attitude toward school. The academically better females in this table were not necessarily well liked by peers and their attitude toward school fell somewhere between the rankings on these two measures. It is assumed that some

of this variability may be attributed to the personalities of the students involved. It is also possible that the lack of positive regard by fellow peers was working to lower the school attitude scores of these students, though this hypothesis would need testing.

Table X

Rankings of Ninth-Grade Female Cliques

	Grade-Point Average		Social Acceptance		School Attitude	
Rank	Clique	Mean	Clique	Mean	Clique	Mean
1	G-27	3.84	G-11	148.00	G-27	126.00
2	G-9	3.68	G-33	161.00	G-11	124.00
3	G-1	3.41	G-1	164.17	G-1	122.00
4	G-11	3.41	G-27	166.67	G-15	121.00
5	G-33	3.18	G-15	169.50	G-33	119.00
6	G-20	3.09	G-19	173.67	G-13	117.50
7	Loners	3.02	G-9	182.00	G-9	117.00
8	G-13	3.01	G-13	186.50	Loners	113.38
9	G-15	2.96	Loners	193.00	G-19	111.70
10	G-19	2.90	G-20	197.67	G-20	108.33

Table XI

Rankings of Ninth-Grade Male Cliques

	Grade-Point Average		Social Acceptance		School Attitude	
Rank	Clique	Mean	Clique	Mean	Clique	Mean
1	B-30	3.76	B-30	154.00	B-13	135.50
2	B-35	3.54	B-17	173.25	B-30	128.50
3	B-13	3.38	B-23	175.00	B-1	125.00
4	B-17	3.36	B-24	179.33	B-24	179.33
5	B-1	3.24	B-5	179.80	B-23	120.50
6	Loners	3.02	B-35	182.40	B-35	119.60
7	B-24	2.68	Loners	183.86	B-17	119.00
8	B-5	2.66	B-1	196.25	B-21	114.00
9	B-21	2.33	B-13	202.50	Loners	107.14
10	B-23	2.00	B-10	202.67	B-5	106.00
11	B-10	1.70	B-21	205.00	B-10	89.33

Table XII

Rankings of Tenth-Grade Female Cliques

Rank	Grade-Point Average Clique	Mean	Social Acceptance Clique	Mean	School Attitude Clique	Mean
1	G-27	3.79	G-27	203.00	G-22	128.33
2	G-14	3.60	G-13	204.66	G-14	128.00
3	G-35	3.59	G-33	206.25	G-27	127.50
4	G-9	3.56	G-14	207.33	G-13	126.00
5	G-25	3.51	G-19	207.60	G-33	125.50
6	G-22	3.46	G-9	212.00	G-35	125.00
7	G-20	3.32	G-20	215.50	G-9	124.50
8	G-13	3.31	Loners	220.14	Loners	121.71
9	Loners	3.16	G-25	222.00	G-25	118.33
10	G-33	3.13	G-22	228.66	G-19	109.00
11	G-19	2.55	G-35	230.50	G-20	97.00

Table XIII

Rankings of Tenth-Grade Male Cliques

Rank	Grade-Point Average Clique	Mean	Social Acceptance Clique	Mean	School Attitude Clique	Mean
1	B-17	3.85	B-30	190.00	B-17	134.14
2	B-30	3.75	B-5	202.25	B-1	133.50
3	B-1	3.12	B-17	209.29	B-30	120.33
4	Loners	3.06	B-22	210.50	B-22	117.00
5	B-5	2.69	B-1	221.25	B-5	110.75
6	B-22	2.65	B-24	223.50	B-21	111.00
7	B-21	2.27	Loners	223.50	Loners	107.00
8	B-10	2.26	B-21	225.67	B-24	104.17
9	B-24	2.24	B-10	233.33	B-10	89.00

Clique Membership and Inferred Learner Self-Concept

An inferred measure of learner self-concept was completed on ninth-grade students by their teachers. The Florida Key, which was used for this purpose, gives students a score of 0 to 5 with the latter being the more positive. A series of F tests were used to determine whether the inferred learner self-concept scores of students could be better predicted by

the mean learner self-concept scores of their clique members or the mean learner self-concept scores of the females and males in the class. The mean score for each of the sexes was again used in lieu of any better predictor. The mean score for females, used as their predictor, was 3.74. The mean score for the males was 3.45.

Table XIV indicates that learner self-concept was better predicted by clique membership than the mean inferred learner self-concept of the other students in the class for all but the black subgroups and the loners. This relationship was significant at the .001 level for males and females combined. The relationship declined to .01 when males and females were considered separately, and further decreased to .05 for white females and white males.

Table XIV

Variances From Predicted Inferred Learner Self-Concept and Clique Inferred Learner Self-Concept, Ninth-Grade Students

Groups[a]	df	Mean Square Difference From Predicted Self-Concept	Mean Square Difference From Clique Self-Concept	F
Females	33	16.2532	6.5810	2.4697**
Males	34	30.7372	10.8474	2.8336**
Females and Males	68	23.2561	8.6174	2.6987***
White Females	30	14.0652	6.3343	2.2204*
Black Females	2	2.1882	.2467	8.8690
White Males	30	28.6150	9.1574	3.1247*
Black Males	3	2.1222	1.6900	1.2557
Male Loners	6	2.1445	1.8968	1.1305
Female Loners	7	6.1297	5.0085	1.2238

[a]Groups exclude students classified as loners unless otherwise specified.

*p = <.05.
**p = <.01.
***p = <.001.

Female scores on this self-concept measure ranged from 2.2 to 5.0 while the males' ranged from 1.8 to 5.0. The means for males and females (3.45 and 3.74) would indicate that the majority of students in this school had a positive concept of themselves as learners.

Clique Membership and Occupational Status of Fathers

The majority of the students in this school had fathers whose occupational status fell into one of the two top categories on the measure used. Therefore, the question of the relationship between clique membership and father's occupational status cannot be answered by this study.

Chapter IV

CONCLUSIONS

Within every secondary school the students divide themselves along various friendship and clique lines. This is a fact of life which educators are frequently aware of, but generally consider as a nuisance variable. The findings of this study confirm the importance that should be attached to the informal system established by the students. The major finding of this study was that, given the procedures used to predict the scores individual students should have received, clique membership was found to be the better predictor of grades, social acceptance by peers, attitude toward school, and inferred self-concept -- all measures of immediate relevance to the objectives of schools as defined by teachers and administrators. In less formal language, a student's choice of friends has a significant relationship to his academic performance and his perceptions of the school environment.

Whether or not educators wish to acknowledge the presence of the informal student social structure, it exists and it affects what a student is learning and how he is behaving. A teacher does not face a class of individuals lacking in life history. Students are members of cliques differentiated by race, sex, and social class and varying levels of status, achievement, and aspirations. Educators have a choice. We can either use this knowledge to strengthen the educational program or we can ignore it and let its effects take a natural course.

The findings from this study thus have some implications for the ways in which schools structure their programs and view their students. This chapter will deal with only a few of the areas in which implications can be drawn: the structure of the school schedule; the new student; the extracurricular activity program; student counseling; and ability grouping practices. Since most educators would agree that social acceptance, attitude toward school, and self-concept as a learner all interact in some way to facilitate or hinder the educational process, the effects of each of these variables will not be considered separately.

First let us look at the structure existing in most secondary schools. The day is divided into approximately six class periods with enough time between each to get from one room to the next. Lunch has been carefully planned down to the exact amount of time it takes to get through the line and eat. It almost appears that the possibility of student interaction has been deliberately removed from the school day. Students are not supposed to pause between classes and visit, nor is there a place for this type of interaction to occur. Additionally, the majority of classes are organized to provide students with subject matter, not a place to exchange viewpoints. Under this type of an arrangement the mutual support which students provide each other in coping with the academic and social demands of the institution has been ignored by the formal educational system. Remember the finding of this study relative to the importance of clique membership in predicting such things as grades? Some students overachieved and others underachieved in order to maintain a grade-point average consistent with their friends. But how did these students determine what constituted an acceptable level of achievement? The exact components of this decision are unknown, but the achievement level was probably arrived at over time through the nuances of verbal and nonverbal communication. Students decide what to learn and how well with little regard to the structured learning situation provided by the teacher or the school.

Now consider the plight of the new student. This study indicated that new students do not easily move into a new school and establish friends. Quite the contrary. While new males and females coped with the environment differently, neither was warmly accepted by the students already enrolled in the school. The majority of the females remained loners; the males tended to form cliques of all new students. While it is true that most of these students gained acceptance by the tenth grade, it must be remembered that a year is a long time to be without a friend when you are fourteen and that this was a small school where it was relatively easy for students to become known. With few exceptions all schools enroll at least some new students each year. Because these students do not enter as a large, easily defined group, the special problems they encounter merely as a result of being new are frequently overlooked. The new student is carefully scheduled into a series of classes based upon legal requirements and past performance. But there is no provision made for meeting his social needs. Here the student is on his own. How does a new student learn some of the basic facts needed for a successful school experience; what activities are available and what type of students belong to them; who runs the school; how is status awarded; what are the ranges

of acceptable behavior? The list goes on. To a teacher or administrator these questions may seem unimportant or superficial; but they are very serious to the new student. The results of this study tend to confirm the feelings of the student. The problems of the new student are compounded when the school structure has been organized to minimize social contact among students.

Most schools view the extracurricular activity program as the place for students to meet their social needs. Indeed, if schools feel that they cannot modify the structure of the day to provide for increased student interaction, then a well-planned and well-supported activity program seems vital. However, there are several problems inherent in this suggestion. The activity programs in many schools are dying because they have not kept pace with the interests of students. There has frequently been little commitment to them by the school in terms of financial or personnel resources. And now, with the increased busing of students, programs consigned to after school or evenings fail to reach many students. It is also a common observation that when a school budget gets tight the activity program (with the possible exception of football) is the first thing that gets cut. This aspect of the curriculum deserves more attention than it has received in the past.

There are also some implications in this study for ways in which counseling services are provided students. The student who has a negative attitude toward school or who is significantly underachieving may be in need of professional help. But if this help runs counter to the views and aspirations of his closest friends it has little chance of success. This leaves two options: help the student change cliques or provide group counseling to all the members of a clique.

Let us consider one last area -- homogeneous versus heterogeneous grouping practices. This study found that grade-point average was better predicted by clique membership than a test of academic ability. If students are assigned to a track program they are likely to make friends among the students they see daily. Thus, dependent upon his placement, a student may overachieve or underachieve throughout high school in an effort to maintain his clique relationships. This fact needs to be taken into consideration in an evaluation of grouping practices.

In sum, more research efforts need to be directed toward gaining an understanding of the relationship between various aspects of the informal structure of school and the formal programs as defined by professional educators. This study found that many faculty members are not aware of the student friendships nor the roles they play within the social structure of

the grade. Since this finding confirms those found by Tryon (1944) and Gordon (1957), students in teacher training programs should be made aware of the fact that student social systems exist and have a direct impact upon the learning that is occurring. There is more to education than the formal curriculum.

APPENDIX A

OHIO SOCIAL ACCEPTANCE SCALE

DIRECTIONS: On a separate sheet you will find the name of every student in your class. Beside each name place the number of one of the following paragraphs that describes how you feel about that person.

1. "My very, very best friend." I would like to have this person as one of my very, very best friends. I would like to spend a lot of time with this person. I would tell some of my troubles and some of my secrets to this person, and would do everything I could to help this person out of trouble.

2. "My other friends." I would enjoy working and being with this person. I would invite this person to a party, and would enjoy going on picnics with this person and our friends. I would like to work with this person and I would like to be with this person often. I want this person to be one of my friends.

3. "I do not know this person very well." I would be willing to be on a committee or in a club with this person. This person is not one of my friends, but I think this person is all right.

4. "Don't care for them." I say "hello" whenever I meet this person around school or on the street, but I do not enjoy being with this person. I might spend some time with this person if I didn't have anything else to do, but I would rather be with somebody else. I don't care for this person very much.

5. "Dislike them." I speak to this person only when it is necessary. I do not like to work with this person and would rather not talk to this person.

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APPENDIX B

STUDENT ATTITUDE SCALE

J. A. Battle

University of Florida

Students of this school, like students of all schools, have different feelings about things. This booklet is for you to express your feelings toward yourself, other students, your teachers, your school administration, and your school as a whole. This is NOT a test. There are no "Right" or "Wrong" answers as such. EVERY ANSWER THAT TELLS HOW YOU FEEL IS A RIGHT ANSWER FOR YOU. By marking how you feel about each statement, you can help your school become a better school.

DIRECTIONS: Please mark your answers on a separate answer sheet. Please place your name, grade, date, and sex on the spaces provided on the top of the answer sheet.

Fill in Answer Space No. 1 if the statement is mostly true or true for you.

Fill in Answer Space No. 2 if the statement is about half-true and half-false for you.

Fill in Answer Space No. 3 if the statement is mostly-false or false for you.

1	2	3		
MT	S	MF	1.	I think I am too shy.
MT	S	MF	2.	I often feel the need to make excuses for the way I act.
MT	S	MF	3.	I often change the way I do things or what I believe in order to please someone else.
MT	S	MF	4.	It worries me to think that some of the people I know may dislike me.
MT	S	MF	5.	I feel that I have little to give to the helping of others.
MT	S	MF	6.	I feel that I might be a failure if I don't make certain changes in my life.
MT	S	MF	7.	When meeting a person for the first time, I want to know at once whether he or she likes me.
MT	S	MF	8.	Although people sometimes praise me, I feel that I do not really earn the praise.
MT	S	MF	9.	I become afraid when I think of something I have done wrong or might do wrong in the future.
MT	S	MF	10.	I would be happier if I didn't have certain faults or fears about myself.
MT	S	MF	11.	I am not at ease at parties and other social affairs.
MT	S	MF	12.	I don't know what I really want out of life.
MT	S	MF	13.	I feel that I am too often left out of things.
MT	S	MF	14.	When my feelings change from sad to happy and happy to sad, I do not know why.
MT	S	MF	15.	I feel unhappy much of the time.
MT	S	MF	16.	I dislike several of my classmates.
MT	S	MF	17.	Members of my class do not know each other well.
MT	S	MF	18.	Students at this school are snobbish or "stuck-up."

1	2	3		
MT	S	MF	19.	Many of my classmates do not act as old as their age.
MT	S	MF	20.	A few students at this school run all the student affairs.
MT	S	MF	21.	Many boys and girls at this school feel that they do not "belong" here.
MT	S	MF	22.	There is little effort at this school to make new students feel "at home."
MT	S	MF	23.	Students at this school do not try to help other students who are in trouble.
MT	S	MF	24.	I find it hard to take a real interest in the activities of some of my friends.
MT	S	MF	25.	When I am first getting to know a person of my age, I compare him or her with me to see whether I am better or not as good as this person.
MT	S	MF	26.	I think that my teachers in general will not listen to student ideas.
MT	S	MF	27.	I feel that few of my teachers are willing to help one student at a time; that is, to help a student individually.
MT	S	MF	28.	Some of my teachers favor girls more than boys.
MT	S	MF	29.	Some of my teachers favor boys more than girls.
MT	S	MF	30.	Not many of my teachers are up to date, as they are behind the times, in what they teach and how they teach it.
MT	S	MF	31.	I feel that many of my teachers think I know less than I do know.
MT	S	MF	32.	It seems to me that some of my teachers often talk unkindly to students.
MT	S	MF	33.	It seems to me that several of my teachers are nervous and easily excited.

1	2	3		
MT	S	MF	34.	Some of my teachers are always using words that are too big for me to understand.
MT	S	MF	35.	I believe that most of my teachers are too strict.
MT	S	MF	36.	My teachers expect too much of me.
MT	S	MF	37.	I believe I have a teacher who would give a higher grade because a student complimented him or her or did a favor for the teacher.
MT	S	MF	38.	I hate at least one of my teachers.
MT	S	MF	39.	I think that some of my teachers seem to feel that they are always right and the student is always wrong.
MT	S	MF	40.	I believe that some of my teachers try to make students afraid of them.
MT	S	MF	41.	It seems to me that some of my teachers are inclined to be "bossy."
MT	S	MF	42.	I feel that none of my teachers grade fairly.
MT	S	MF	43.	I believe that most of my teachers should be more pleasant and cheerful.
MT	S	MF	44.	I think that most of my teachers would rather not see and talk to me when school is out.
MT	S	MF	45.	In many of my classes I feel that the teachers do not want me to express my real opinion, thoughts, or ideas.
MT	S	MF	46.	It seems to me that my textbooks are "behind the times" or not up to date.
MT	S	MF	47.	I don't believe that any of my courses or subjects will be useful to me in the work I might do when I finish school.
MT	S	MF	48.	I think there is little opportunity or chance for students in this school of different grades to meet and get to know each other.
MT	S	MF	49.	I believe there are too many rules in this school.

1	2	3		
MT	S	MF	50.	It seems to me that if a student is from a family who has more money, or is considered more important, that he or she will get better treatment from the school.

APPENDIX C

FLORIDA KEY
(INFERRED SCHOOL SELF-CONCEPT)

William W. Purkey
Bob N. Cage
William Graves

Never: 0 | Very Seldom: 1 | Once in a While: 2

Occasionally: 3 | Fairly Often: 4 | Very Often: 5

_____
Name of Student to be Evaluated

Compared with other students his age, does this student:

1. get along with other students? ____
2. get along with the teacher? ____
3. keep calm when things go wrong? ____
4. say good things about his school? ____
5. tell the truth about his school work? ____

Relating ____

6. speak up for his own ideas? ____
7. offer to speak in front of the class? ____
8. offer to answer questions in class? ____
9. ask meaningful questions in class? ____
10. look people in the eye? ____
11. join in school activities? ____
12. talk to others about his school work? ____

Asserting ____

13. seek out new things to do in school on his own? ____
14. offer to do extra work in school? ____

Investing ____

15. finish his school work? ____
16. pay attention to class activities? ____
17. do his school work carefully? ____
18. read in class? ____

Coping ____

Total ____

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